Attorney Docket No.: **E0295/70097**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):	Blumenau, et. al.
Serial No.:	09/343,969
Filed:	June 30, 1999
For:	USER INTERFACE FOR MANAGING STORAGE IN A STORAGE SYSTEM COUPLED TO A NETWORK
Examiner:	Dung C. Dinh
Art Unit:	2153

CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)

The undersigned hereby certifies that this document is being placed in the United States mail with first-class postage attached, addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on June __, 2004.

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION OF STEPHEN J. TODD UNDER 37 C.F.R. §1.132

I, Stephen J. Todd, attest that:

1. I am currently employed as a Consultant Software Engineer at EMC Corporation, the assignee of the above-identified application, but am not one of the named inventors on the application. I hold a Bachelor's degree in Computer Science from the University of New Hampshire. I have over eighteen years experience in the creation of storage system software products. During this time, I have participated in the development and design of software for EMC's CLARiiON storage system and for EMC's Centera storage system. I have also participated in the design and development of a storage system management suite, EMC's Navisphere Software Management Suite, where I led the technical direction of a 50 person development team. I am an inventor on eight granted U.S. patents and over thirty pending U.S. patent applications, all relating to storage systems and/or related software products.

2. I have reviewed the specification and claims of the above-identified application. I have also reviewed the Office Action mailed January 23, 2004, and the Chen (6,041,3465), Bormann (6,157,378), and IBM Technical Disclosure Bulletin, March 1992 (IBM TBD) references discussed therein.

3. I disagree with the assertions on page 3 of the Office Action that the mass storage device 180 disclosed by Chen is accessible by a plurality of processors and that Chen teaches assigning to each processor a portion of the storage system. The only processor that Chen discloses as accessing the mass storage device is Internet Appliance 110. My understanding of Chen is that the workstations 130-170 only access the internet appliance 110, and are in all likelihood unaware that mass storage device 180 even exists. In addition, Chen does not disclose assigning to any processor a portion of the storage system. The portion of Chen cited in the Office Action discloses that "a portion of the mass storage device 180 of the file server 120 is allocated for use in providing an application." *See* Chen, Column 4, lines 34-35. I believe that the quoted language means that certain blocks of the disk contain an application program. I do not believe the quoted language relates to the concept of allocating portions of the mass storage device to particular processors.

4. It is my opinion that one of ordinary skill in the art would not have been motivated by Bormann to modify the system of Chen in any way. Bormann discloses a user interface for use in a network switch that displays operator identifiers and the login state of the identifiers to prevent multiple maintenance technicians logged into the switch from interfering with each other's actions. *See* Bormann, Column 3, lines 26-34 and Column 1, lines 44-61. I see no reason to incorporate this feature into the file server disclosed by Chen, because the problem that Bormann's user interface solves is not relevant to the system disclosed by Chen. That is, there is no disclosure in Chen that multiple maintenance technicians may be logged in to the file server at the same time, giving rise to the possibility of interference between the actions of each technician. It is my view that one skilled in the art would not have been motivated by Bormann to modify Chen by adding a graphical user interface, or in any other way.

5. In view of the foregoing, I do not believe that the combined teachings of Chen and Bormann would suggest to one of skill in the art to display a representation of each of a plurality of host computers that is logged into a storage system over a network and that identifies each of such hosts as being logged into the storage system. Neither Chen nor Bormann teaches a storage system having a plurality of host computers logged into it, let alone the concept of displaying a representation identifying each of a plurality of host computers as being logged into a storage system. One skilled in the art following the unrelated teachings of Chen and Bormann would, in my view, arrive at a system that would allow users to log in to the Internet Appliance (not the mass storage device 180) of Chen, and that might include a distributed network switch that may have a graphical user interface to display operators logged in to the switch, as taught by Bormann. These references simply do not teach a plurality of host processors being logged into a storage system.

6. With respect to the claims relating to a storage system storing volumes of data capable of having different access privileges, and the modifying of the access privileges of a volume using a graphical representation of the volume, neither Chen nor the IBM TBD reference even discloses volumes of data having different access privileges, let alone the modification of access privileges for a volume of data using a graphical representation. In Chen, the mass storage device 180 is managed by the file server 120. *See* Chen, Col. 4, lines 33-41. Thus, I understand Chen to suggest that the storage space on the mass storage device 180 is presented only to the file system executing on the file server 120, and is not made directly available to the Internet Appliance 110 or any of the workstations 130-170. Stated differently, the Internet Appliance 110 and workstations 130-170 do not have direct access to the mass storage device, and can only access it indirectly (in a manner most likely transparent to them) through the file system presented by the file server. There is no disclosure in Chen relating to access privileges for a volume of data on the mass storage device 180, let alone a teaching of different volumes of data having different access privileges. Significantly, Chen merely teaches a mass storage device 180 that is presented to a single entity (i.e., the file server 120). *See* Chen, Col. 4, lines 56-59. Thus, I see no reason why units of storage on the mass storage device would ever be assigned different access privileges.

7. The portion of Chen that the Examiner appears to rely upon as being relevant to the claims relating to access privileges for volumes of data relates to a different concept, as Chen merely discloses controlling access privileges to the file server 120 (as opposed to volumes of data) and further teaches that access to the file server is controlled using a username and password. *See* Chen, Col. 5, lines 21-34. Access by a user to a file system is not the same as access privileges to a volume of data from a host processor, as recited in claims 62, 68, 74 and 80. In addition, Chen teaches that the Internet Appliance 110 provides a username and password to the file server (*See* Chen, Col. 5, lines 21-34), and there is no teaching of various volumes of storage that have different access privileges.

8. I understand the Examiner's reliance on the IBM TBD reference to be based solely upon the teaching of a graphical user interface. The IBM TBD reference does not disclose any of the features relating to access privileges to volumes of data that I discussed above as being absent from Chen. Therefore, even if one of skill in the art were motivated by the IBM TBD reference to provide a graphical user interface for Chen, I believe the graphical user interface would simply be used to establish a username and password, which as discussed above, does not relate to modifying access privileges for one of a plurality of hosts to a volume of data stored on a storage system having at least one other volume of data with different access privileges.

9. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued therefrom. Executed on this 22nd day of June 2004.

Stephen J. Todd

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